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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/598,010	06/20/2000	Antoine Bastard	P/3255-43	5043

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EXAMINER	
LAZOR, MICHELLE A	
ART UNIT	PAPER NUMBER
1734	

DATE MAILED: 12/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/598,010	BASTARD ET AL.
	Examiner	Art Unit
	Michelle A Lazor	1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/7/03*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18-21,27-33,36 and 37* is/are rejected.

7)☒ Claim(s) *22-26,34,35,38 and 39* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *6/20, 7/24*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 18, 20, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Winfield et al. (U.S. Patent No. 5900585).

Winfield et al. disclose a method comprising installing two radially deformable sealing blocks (34, 36) axially spaced apart in the annular space (Figure 1; column 7, lines 4 – 10) which are adapted to seal the annular space and which define a region bounded between the two sealing blocks, the sealing blocks having radially opposite faces in contact respectively with the outer and inner walls, the sealing blocks being placed in the annular space so that the axial length of the region is in the range of 0.5 to 2 times the external diameter of the outer wall; placing a curable compound (46) in the region; and curing the compound in the region (column 7, lines 24 – 43). Thus Winfield et al. disclose all the limitations of Claims 18, 20, and 21, and anticipate the claimed invention.

3. Claims 18, 20, 29, and 36 are rejected under 35 U.S.C. 102(a) as being anticipated by Izawa et al. (JP 2000161344A or as equivalent alternative U.S. Patent No. 6440347).

Izawa et al. disclose a method comprising installing two sealing blocks (32a, 32b) axially spaced apart in the annular space ('347: Figure 3A; column 9, lines 1 – 6) which are adapted to

seal the annular space and which define a region bounded between the two sealing blocks, the sealing blocks having radially opposite faces in contact respectively with the outer and inner walls, the sealing blocks being placed in the annular space so that the axial length of the region is in the range of 0.5 to 2 times the external diameter of the outer wall; placing a curable, thermosetting compound (22); and curing the compound in the region, wherein the potlife is considered to be in the range between a few minutes to a few weeks ('347: column 9, lines 16 – 39). Thus Izawa et al. disclose all the limitations of Claims 18, 20, 29, 30, and 36, and anticipate the claimed invention.

4. Claims 18, 20, 28, 29, 30, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Hervig (U.S. Patent No. 4377547).

Hervig disclose a method comprising installing two sealing blocks (14, 23) axially spaced apart in the annular space (Figure 3) which are adapted to seal the annular space and which define a region bounded between the two sealing blocks, the sealing blocks having radially opposite faces in contact respectively with the outer and inner walls, the sealing blocks being placed in the annular space so that the axial length of the region is in the range of 0.5 to 2 times the external diameter of the outer wall (column 2, line 31 – column 3, line 7); placing a curable, thermosetting compound, capable of being cured at room temperature, in the region; and curing the compound in the region, wherein the potlife is considered to be in the range between a few minutes to a few weeks (column 3, lines 8 – 37). Thus Hervig discloses all the limitations of Claims 18, 20, 28, 29, 30, and 36, and anticipates the claimed invention.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 19, 32, 33, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hervig as applied in Claim 18 above, in view of Hsu et al. (U.S. Patent No. 4954152).

Hervig discloses all the limitations of Claim 19 including passing the pipe through a heating region to accelerate the curing of the curable compound by raising the temperature in the mold to between 175°C to 180°C (column 3, lines 26 – 37), but does not specifically disclose winding the rigid pipe either after or before the curable compound is introduced. However, Hsu et al. discloses winding optical fiber splices (column 1, lines 45 – 52), and therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to wind a rigid pipe or optical fiber either after or before the curable compound is introduced, to easily transport the substrate from one area to another, and then consequently unwinding the pipe or optical fiber.

7. Claim 21 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hervig.

Hervig discloses the sealing blocks to comprise what is considered a radially deformable material which projects radially when compressed axially and which is deformable to the shape of the inner and outer walls (column 2, line 65 – column 3, line 7). In the alternative, it would have been obvious to one of ordinary skill in the art at the time of the invention to design the sealing blocks to be radially deformable when there is a compression force axially so as to be readily formable to the mold form, and so that as the pressure increases within the piping or

chamber, there is sufficient flexibility built into the sealing blocks to prevent high pressure build-ups and possible cracking of the pipe.

8. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hervig as applied in Claim 18 above, in view of Weinberger et al. (U.S. Patent No. 5382793).

Hervig discloses all the limitations of Claim 19, but does not specifically disclose using an epoxy resin. However, Weinberger et al. disclose using an epoxy resin as insulation in high voltage spliced lines (column 8, lines 10 – 24). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use an epoxy resin as the curable compound since it is well known and conventional to use epoxy resins for high voltage, spliced lines.

Allowable Subject Matter

9. Claims 22 – 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

There was no reference in the prior art search that disclosed, taught, or suggested installing a rigid bearing plate to bear against at least one lateral side of each of the sealing blocks and there was no reference to the sealing block having a radial dimension less than the radial dimension of the annular space when the sealing block is installed into the annular space; subsequent to the introduction of the sealing block in the annular space, radially expanding the sealing block to bring its radially opposite faces into tight contact with the opposed inner surface of the outer wall and outer surface of the inner wall.

10. Claims 34, 35 and 39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

There was no reference in the prior art search that disclosed, taught, or suggested straightening the pipe before heating the region to cure the compound.

11. Claims 38 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

There was no reference in the prior art search that disclosed, taught, or suggested the curable compound to be introduced into the region while the pipe is on land, and winding the pipe onto a pipe-laying vessel, and further comprising transporting the wound reel on the vessel to the site for laying of the pipe.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Winfield et al. (U.S. Patent No. 5804767) and Nakamura (U.S. Patent No. 5711072) both disclose methods that include sealing blocks in a pipe region and placing curable compound between the sealing blocks.

13.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle A Lazor whose telephone number is 703-305-7976; after 12/19/03, telephone number will be 571-272-1232. The examiner can normally be reached on Mon - Thurs 6:30 - 4:00, Fridays 6:30 - 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 703-308-3853. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

MAL
12/9/03

MICHAEL COLAIANNI
PRIMARY EXAMINER